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Universal Ray IR 90

Universal Ray IR 90 90,000 BTU Natural Gas Ceramic High Intensity Heater User Manual

Model: IR 90 | ASIN: B07CH3B292

Introduction

This manual provides essential information for the safe and efficient installation, operation, and maintenance of your Universal Ray IR 90 Natural Gas Ceramic High Intensity Heater. Please read this manual thoroughly before installation or use. This heater is designed for commercial and industrial applications only.

Safety Information

- **WARNING:** This heater is not approved for residential use. It is intended for commercial and industrial applications only.
- **DANGER:** Improper installation, adjustment, alteration, service, or maintenance can cause property damage, injury, or death. Read the installation, operating, and maintenance instructions thoroughly before installing or servicing this equipment.
- Installation and service must be performed by a qualified installer, service agency, or gas supplier.
- Ensure adequate ventilation in the area where the heater is installed and operated.
- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- Keep the area around the heater clear of combustible materials. Refer to local codes for specific clearance requirements.
- Always follow local codes, national codes, and regulations regarding gas appliance installation and operation.

Product Overview

The Universal Ray IR 90 is a 90,000 BTU natural gas ceramic high-intensity heater designed for commercial environments with high air infiltration, high ceilings, or spot heating requirements. Its radiant design provides efficient and targeted heat.

Key Features:

- 90,000 BTU Heat Output

- Natural Gas Fuel Type
- Direct Spark Ignition
- Stainless Steel Rods
- Bright Polished Aluminum Reflector
- 120V Electrical Connection
- Radiant Burner Type
- Designed for Ceiling Mount

Product Image:



Image Description: A front view of the Universal Ray IR 90 natural gas ceramic high-intensity heater, showing its rectangular shape, ceramic panels, and polished aluminum reflector. The heater is designed for ceiling mounting in a commercial setting.

INSTALLATION

IMPORTANT: Installation must be performed by a licensed professional in accordance with all local and national codes, including NFPA 54/ANSI Z223.1 (National Fuel Gas Code) and NFPA 70 (National Electrical Code).

Pre-Installation Checks:

- Verify that the heater type (natural gas) matches the available gas supply.
- Ensure the mounting location can safely support the heater's weight and is suitable for ceiling mount.
- Confirm adequate clearances from combustible materials as specified by local codes and manufacturer guidelines.
- Ensure a dedicated 120V electrical supply is available for the direct spark ignition system.

Mounting:

The IR 90 is designed for ceiling mount applications. Use appropriate mounting hardware (not included) to securely fasten the heater to structural supports. Refer to the detailed installation diagrams provided with the physical product for specific mounting instructions and required clearances from walls, ceilings, and combustible materials.

Gas Connection:

Connect the natural gas supply line to the heater's gas inlet. All gas connections must be made by a qualified technician, using approved materials, and leak-tested thoroughly before operation. Ensure a manual shut-off valve is installed upstream of the heater.

Electrical Connection:

Connect the 120V electrical supply to the heater's control panel for the direct spark ignition. Ensure proper grounding and wiring according to all applicable electrical codes. A dedicated circuit is recommended.

Operating Instructions

Before operating, ensure all installation steps are complete and verified by a qualified professional. Do not operate the heater if you suspect any gas leaks or electrical issues.

Starting the Heater:

1. Ensure the manual gas supply valve to the heater is fully open.
2. Turn on the electrical power supply to the heater at the main switch or circuit breaker.
3. The direct spark ignition system will automatically attempt to ignite the burner. You may hear a clicking sound.
4. Observe the ceramic panels; they should begin to glow red within a few seconds, indicating successful ignition.
5. If the heater does not ignite after several attempts, the system may lock out. Turn off the electrical power for 5 minutes, then retry. If problems persist, refer to the Troubleshooting section.

Shutting Down the Heater:

1. Turn off the electrical power supply to the heater at the main switch or circuit breaker.
2. Close the manual gas supply valve to the heater.
3. Allow the heater to cool down completely before any maintenance or service.

Maintenance

Regular maintenance ensures optimal performance, efficiency, and safety. All maintenance should be performed by a qualified service technician.

Annual Maintenance (Recommended):

- Inspect the ceramic panels for cracks, damage, or excessive carbon buildup. Replace if necessary.
- Clean the burner and ignition components to remove dust, debris, and spider webs.
- Check all gas connections for leaks using a suitable leak detection solution.
- Inspect electrical connections and wiring for wear, corrosion, or loose terminals.
- Verify proper operation of the direct spark ignition system and flame sensor.
- Clean the bright polished aluminum reflector to maintain its radiant efficiency.
- Ensure all safety controls are functioning correctly.

Cleaning:

Before cleaning, ensure the heater is completely cool and both gas and electrical supplies are turned off. Use a soft brush or vacuum cleaner to remove dust from the heater's exterior and internal components. Do not use abrasive cleaners, solvents, or water directly on the ceramic panels or electrical components.

Troubleshooting

If the heater is not operating correctly, consult the following table. For issues not listed or if problems persist, contact a qualified service technician.

Problem	Possible Cause	Solution
Heater does not ignite	No gas supply	Check if gas valve is open; verify gas pressure with a qualified technician.

Problem	Possible Cause	Solution
Heater does not ignite	No electrical power	Check circuit breaker and power switch. Ensure 120V supply.
Heater does not ignite	Faulty ignition system or flame sensor	Contact a qualified service technician for diagnosis and repair.
Low heat output	Dirty burner or ceramic panels	Perform maintenance cleaning; contact technician if efficiency does not improve.
Unusual odors (e.g., sulfur/rotten eggs)	Gas leak	Immediately shut off gas supply and electrical power. Evacuate the area and contact emergency services/gas company. Do not operate the heater.

Specifications

- **Model:** IR 90
- **Brand:** Universal Ray
- **Heat Output:** 90,000 British Thermal Units (BTU)
- **Fuel Type:** Natural Gas
- **Electrical Supply:** 120V
- **Burner Type:** Radiant
- **Mounting Type:** Ceiling Mount
- **Recommended Use:** Indoor, Commercial (e.g., Garage, Office)
- **Special Feature:** Fast Heating
- **ASIN:** B07CH3B292
- **UPC:** 725084931087
- **Equivalent Model:** Re-Verber-Ray DR90 NFS-2 120V

Warranty and Support

For warranty information and technical support, please contact Universal Ray directly or the authorized dealer from whom the product was purchased. Keep your purchase receipt and product serial number handy for faster service.
Manufacturer: Universal Ray
Product Link: https://www.amazon.com/dp/B07CH3B292

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